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(11) Publication number:

0 644 129 A1

(12)

EUROPEAN PATENT APPLICATION

(21) Application number: 93115031.2

(51) Int. Cl.⁶: B65D 81/32

(22) Date of filing: 17.09.93

(43) Date of publication of application:
22.03.95 Bulletin 95/12

(94) Designated Contracting States:
CH DE ES FR GB LI

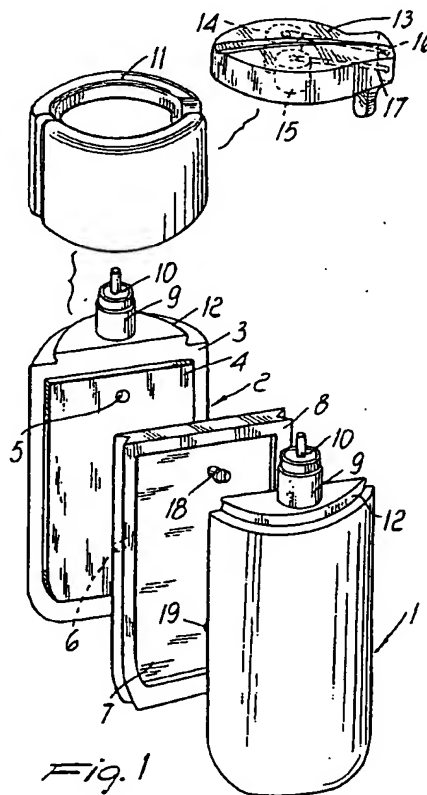
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(54) Two-part container for multicomponent products.

(57) Container particularly for multicomponent products, including a first tank (1) and a second tank (2) each having, on a respective outer wall (3), a median portion (4) which rises from said wall. The median portion (4) is provided with seats (5, 6) for accommodating engagement pins (18, 19) which rise from a coupling partition (7) provided with a frame (8) shaped complementarily with respect to each outer wall (3) of the tanks (1, 2).



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The present invention relates to a container particularly for multicomponent products.

Particular products which comprise at least two active components which can be used for their aesthetic effects when mixed in appropriate doses are used in cosmetology. The problem which arises is indeed linked to the active components, which in some cases lose their effectiveness if they are placed in contact with other active components or are severely limited in terms of the persistence of their activity.

Furthermore, in many other fields of application there is the need to keep chemically incompatible liquids or emulsions separate until they are dispensed.

In order to solve this problem, multicomponent containers have been used; said containers have at least one pair of containers which allow to mix the components of the cosmetic product just before or during their application.

These containers usually comprise a pair of containers, in the case of two components, which are kept close together by means of an external retention cup within which they are inserted with one of their ends, whereas their dispenser is a dispensing actuation closure which allows to mix the active components before or during their dispensing.

However, this solution leads to considerable problems, since the connection of the two containers is not stable. It should be furthermore stressed that the outer cup, which may also be metallic, reduces the printable surface of the containers, to the detriment of the information which must be printed thereon according to the applicable statutory provisions.

An aim of the present invention is to eliminate or substantially reduce the problems described above by providing a container particularly for multicomponent products which eliminates the use of external cups for the containment and mutual coupling of the containers.

Another object of the present invention is to provide a container which allows to obtain a stable coupling between the two containers of the individual products.

Not least object of the present invention is to provide a container which is highly reliable, relatively easy to manufacture and at competitive costs.

This aim, the objects mentioned and others which will become apparent hereinafter are achieved by a container particularly for multicomponent products according to the invention, characterized in that it comprises a first tank and a second tank each having, on a respective outer wall, a median portion which rises from said wall, said median portion having seats for accommodat-

ing engagement means which rise from a coupling partition, said partition having a frame which is shaped complementarily with respect to each outer wall of said tanks.

Further characteristics and advantages of the present invention will become apparent from the following description of a preferred embodiment of a container particularly for multicomponent products, illustrated only by way of non-limitative example in the accompanying drawings, wherein:

figure 1 is an exploded perspective view of a container according to the invention;

figure 2 is a partially sectional front elevation view of the container;

figure 3 is a plan view of a dispenser closure;

figure 4 is a partially sectional lateral elevation view of the container;

figure 5 is a sectional plan view, taken along the plane V-V of figure 4;

figure 6 is an exploded front elevation view of the neck of a tank with the respective dispenser valve; and

figure 7 is a sectional front elevation view of the neck with the valve installed.

With reference to figures 1 to 5, a container particularly for multicomponent products comprises a first tank 1 and a second tank 2 which have, on a respective outer wall 3, a median portion 4 which rises or protrudes from said wall 3.

The median portion 4 is provided with accommodation seats 5 and 6 for engagement means which rise from a coupling partition 7 which has, at each opposite side thereof, a frame 8 shaped complementarily with respect to each median portion 4 of the tanks 1 and 2.

Each tank 1 and 2 is provided with a respective neck 9 in which, as explained more clearly hereinafter, a respective dispenser valve 10 is fixed.

In order to improve the coupling between the tanks, there is an upper collar 11 provided with an internal perimetric annular groove, not shown, which couples to a complementarily shaped ridge 12 defined on the upper portion of the tanks 1 and 2 which is provided with the neck 9.

In order to perform correct dispensing, there is a dispenser closure 13 provided with a pair of actuation stoppers 14 and 15 which engage on the valves 10; each actuation stopper 14 and 15 is provided with a respective dispensing duct 16 and 17 in order to simultaneously dispense the two chemically incompatible emulsions or active components or liquids contained in the two different tanks 1 and 2.

Each accommodation seat 5 and 6 has, in the median portion 4, a blind cavity, designated by the same reference numeral, which has a respective undercut 5a and 6a against which the engagement

means engage; each engagement means comprises a pin 18 and 19 which protrudes from the partition 7. Each pin 18 or 19 has, figure 5, its head split transversely so as to engage with the respective undercuts 5a and 6a.

Furthermore, advantageously, the metallic strip which usually fixes the valve to the neck of the respective tank is eliminated by providing on the neck 9, or rather on its internal surface, an annular recess 20 which defines an undercut in which a perimetric edge 21 of the dispenser valve 10, which is preferably of the recirculation type, engages.

Assembly of the container according to the invention is as follows: the median portions 4 are inserted in the frame 8, coupling the cavities 5 and 6 to the respective pins 18 and 19. Then the tanks 1 and 2 are mutually coupled by pressing, and then the collar 11 is mounted, followed finally by the closure 13, which completes the package of the cosmetic product.

Conveniently, the ducts 16 and 17 can lead out at a single point, or in two separate but adjacent points, figure 2, or can be joined, from a certain portion onward, in a single duct, according to the type of mixing to be imposed between the active components of the cosmetic substance contained in the tanks 1 and 2.

Practical tests have shown that the present invention achieves the intended aim and objects, eliminating both troublesome external retention cups and the use of adhesives during assembly, and advantageously eliminating metallic strips for fixing the valves to the necks of the respective tanks, which constitute their highest cost.

In practice, the materials employed, as well as the dimensions, may be any according to the requirements.

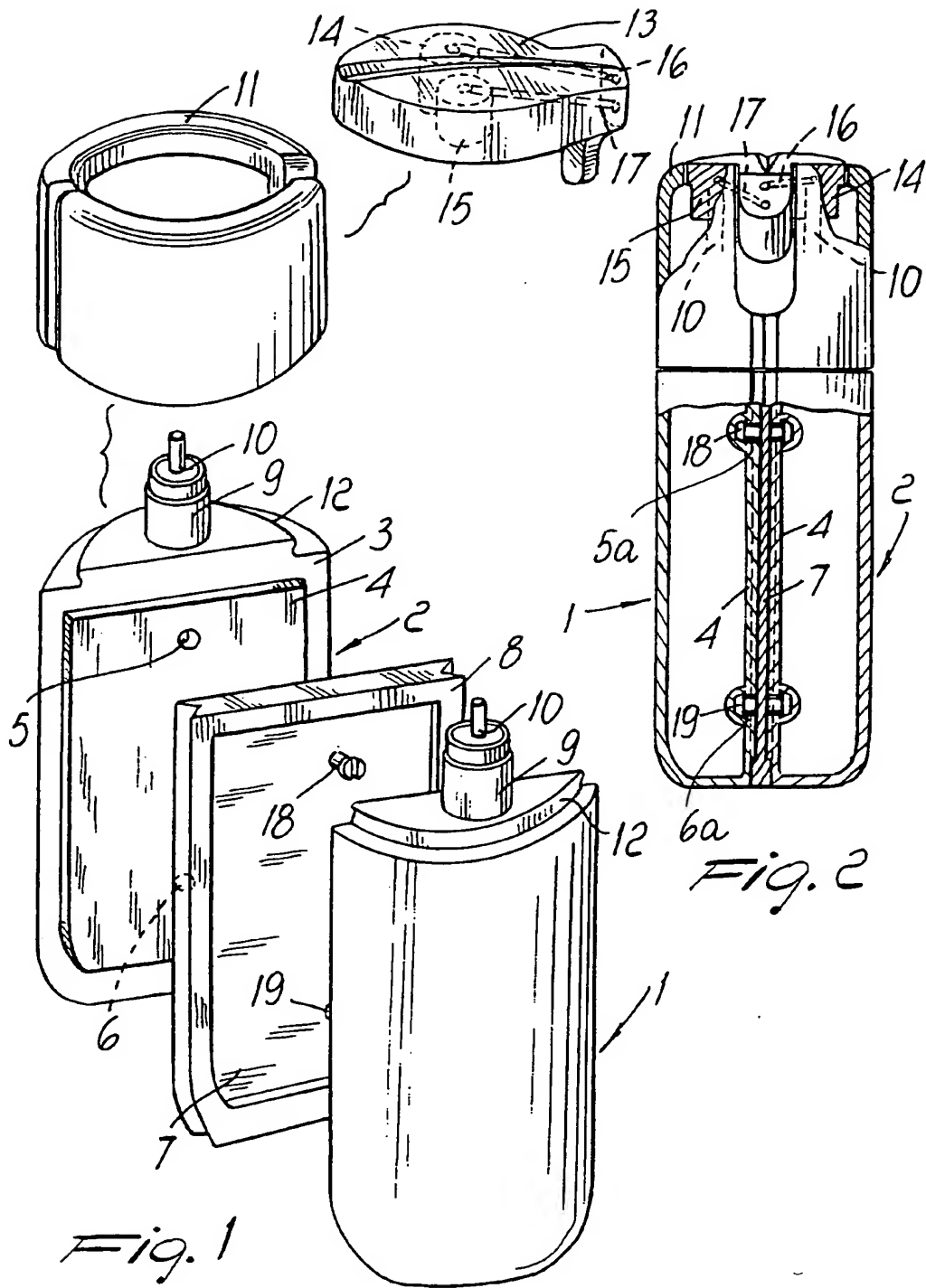
Where technical features mentioned in any claim are followed by reference signs, those reference signs have been included for the sole purpose of increasing the intelligibility of the claims and accordingly such reference signs do not have any limiting effect on the scope of each element identified by way of example by such reference signs.

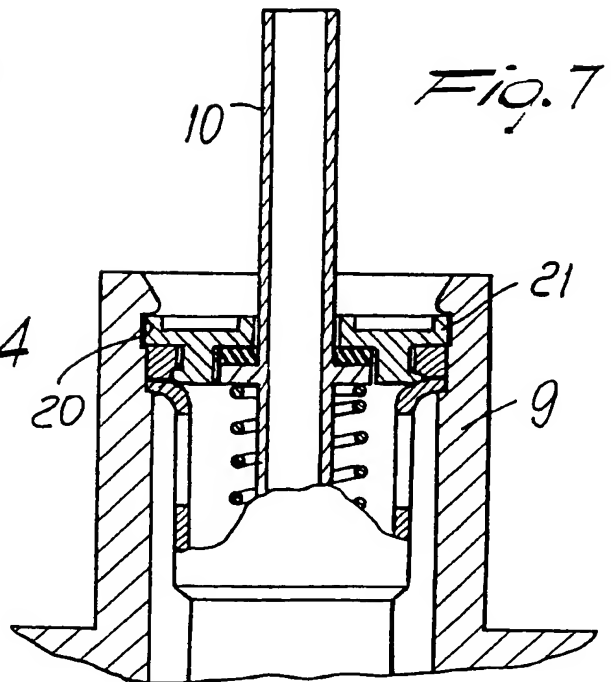
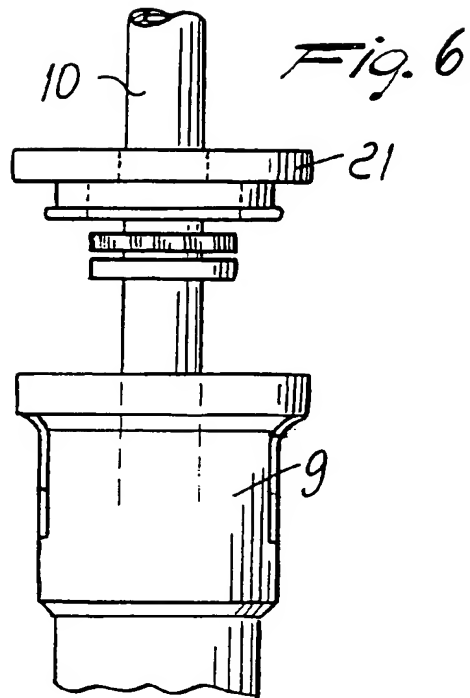
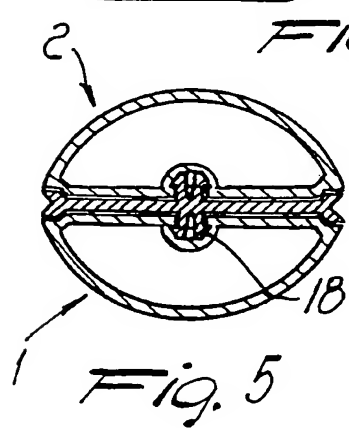
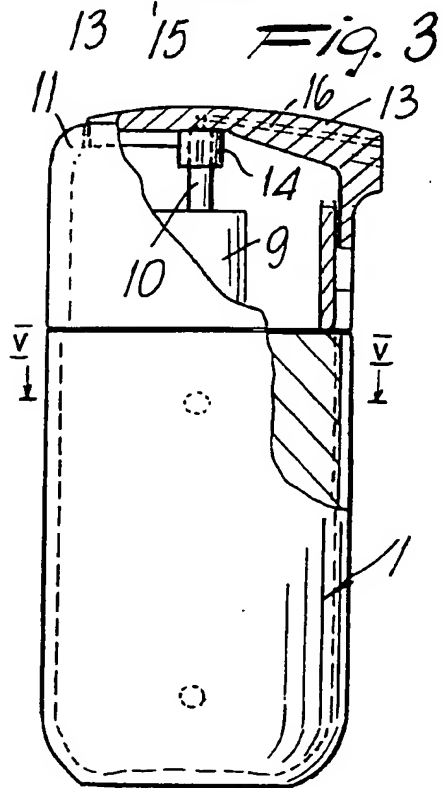
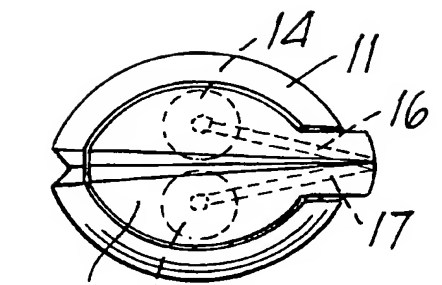
Claims

1. Container particularly for multicomponent products, characterized in that it comprises a first tank (1) and a second tank (2) each having, on a respective outer wall (3), a median portion (4) which rises from said wall, said median portion (4) having seats (5, 6) for accommodating engagement means (18, 19) which rise from a coupling partition (7), said partition having a frame (8) which is shaped complementarily

with respect to each outer wall (3) of said tanks (1, 2).

2. Container according to claim 1, characterized in that each accommodation seat (5, 6) has, in said median portion (4), a blind cavity which has an undercut (5a, 6a) against which said engagement means (18, 19) engage.
3. Container according to claim 1, characterized in that each one of said engagement means comprises a pin (18, 19) which protrudes from said partition (7), each pin having its head split transversely so as to engage said undercut (5a, 6a).
4. Container particularly for multicomponent products, characterized in that it comprises at least one pair of tanks (1, 2), each tank having a dispenser valve (10) fixed to a respective neck (9), said neck having, on its inner surface, an annular recess (20) which defines an undercut in which a perimetric edge (21) of said dispenser valve (10) engages.







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EUROPEAN SEARCH REPORT

Application Number
EP 93 11 5031

DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.6)
A	FR-A-2 647 093 (L'OREAL) * the whole document * -----	1-3	B65D81/32
			TECHNICAL FIELDS SEARCHED (Int.Cl.6)
			B65D
The present search report has been drawn up for all claims			
Place of search THE HAGUE		Date of completion of the search 22 February 1994	Examiner Leong, C
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure F : intermediate document I : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			